Multidisciplinary

Assessment of knowledge on osteoporosis among women

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Received 1 July 2024; Accepted 7 Aug 2024; Published 16 Aug 2024

Abstract
Osteoporosis is characterized by low bone mass and is associated with deterioration of bone microarchitecture. Osteoporosis causes the bones to be fragile and increases susceptibility to fracture even with trivial trauma. after attainment of menopause in women the process of osteoporosis is accelerated by estrogen deficiency. Estrogen helps in maintaining a positive calcium balance and in osteogenesis. Menopause accelerates the rate of bone loss by 2%–5% per year, and this may continue for the next 10 years.
The study aimed to Assessment of knowledge on osteoporosis among women. A descriptive study was carried out through the present study in order to achieve the early stated objectives. The study was begun from February, 5, 2023 to April, 15, 2023.
The study is conducted in Al-Najaf City/Al-Najaf Al-Ashraf Health Directorate / in maternity wards at Al-Zahraa teaching hospital, and Al-Hakim Hospital.
In the current study, a non-probability (purposive) sample of hospitalized patients. It was intended to include all the patients who were hospitalized in the maternity wards in the sample group. The study was carried out with 200 patients after excluding those who declined to participate. Data were collected by face-to-face interviews.
the study concludes that most women are age 19-26. The majority of women are from urban residential areas ،more women are housewife occupation ،The largest number of women are primary school of education ،Women's marital status is married. The economic and social situation is medium. The current study concluded that the knowledge of OP Among women could be considered Moderate and Shows that the overall assessment of women knowledge about osteoporosis is Uncertain.
The study recommends that a population-based study should be conducted to increase women's awareness about of osteoporosis especially among young women, Ministry of Health should employ a mass media to increase women' awareness about of osteoporosis, Work on programs that increase women's knowledge about osteoporosis, such as health education programs through the media.

Keywords: Assessment, Knowledge, Osteoporosis

Introduction

Osteoporosis is characterized by low bone mass and is associated with deterioration of bone microarchitecture. Osteoporosis causes the bones to be fragile and increases susceptibility to fracture even with trivial trauma [1] after attainment of menopause in women, the process of osteoporosis is accelerated by estrogen deficiency. Estrogen helps in maintaining a positive calcium balance and in osteogenesis. Menopause accelerates the rate of bone loss by 2%–5% per year, and this may continue for the next 10 years [2]. Osteoporosis is a major public health concern associated with deterioration in bone microarchitecture, leading to high risk of fragility fractures. Fractures, especially hip fractures, are considered to be the most dreadful and fearful consequences of osteoporosis leading to high morbidity, such as chronic pain and immobility, and mortality [3].

Calcium intake, physical activity and lifestyle are modifiable risk factors of osteoporosis and with educational strategies focusing on these risk factors, the impact of osteoporosis can be reduced [4]. Osteoporosis is a bone disease characterized by reduced bone mass and structural weakening of the bone tissue. Osteoporotic bones are prone to fractures even with the application of marginal force [5]. Although the disease affects both sexes, postmenopausal women are especially at increased risk [6]. This is due to a reduction in the level of estradiol, increased osteoclastic resorption activity, and reduced osteoblastic activity [7, 8]. Over time, osteoporosis and osteoporosis-related fractures have consumed significant health resources and are now considered a public health concern [9]. The primary step in the prevention and management of any health condition leverages adequate knowledge and right beliefs about the condition [10, 11]. Proper knowledge provides an excellent platform for sharing ideas between the healthcare provider and the patient, which is the cornerstone of the successful outcome of any consultation. On the other hand, insufficient knowledge about a health condition places patients at risk of complications and poor prognosis in a condition that would otherwise be easily preventable or treated. This information is vital in the formulation of osteoporosis preventive strategies [12]. Fracture is the most important clinical consequence of osteoporosis, and prevention of fracture is the rationale for identification of persons at higher risk. Although several characteristics and behaviors have been shown to be risk factors for osteoporosis (e.g., white ethnicity, advanced age, cigarette smoking, low body weight, and inadequate calcium intake), evaluation of risk factors alone has been inadequate to diagnose accurately osteoporosis or low bone mass or to predict fracture risk in individual patients [13, 14].

Methods

A descriptive study was carried out through the present study in order to achieve the early stated objectives. The study was begun from February, 5, 2023 to April, 15, 2023. The study is conducted in Al-Najaf City/Al-Najaf Al-Ashraf Health Directorate / in maternity wards at Al-Zahraa teaching hospital, and Al-Hakim Hospital. A non-probability (purposive) sample of hospitalized patients. It was intended to include all the patients who were hospitalized in the maternity wards in the sample group. The study was carried out with 200 patients after excluding those who declined to participate. Data were collected by face-to-face interviews.

Results

Table 1: Socio-demographic characteristic of the study sample

Socio-demographic data	Rating and intervals	Frequency	Percent
Age/Years	<= 18.00	5	2.5
	19.00 – 28.60	67	33.5
	28.61 – 39.20	40	20.0
	39.21 – 49.80	36	18.0
	49.81 – 60.40	49	24.5
	60.41+	3	1.5
	Total	200	100.0
Residency	Rural	73	36.5
	Urban	127	63.5
	Total	200	100.0
Marital status	Married	139	69.5
	Divorced	47	23.5
	Widow	14	7.0
	Total	200	100.0
Occupation	Housewife	143	71.5
	Student	28	14.0
	Governmental	27	13.5
	Private Job	2	1.0
	Total	200	100.0
Socio-economic status	Satisfied	73	36.5
	Satisfied to Some extent	108	54.0
	Unsatisfied	19	9.5
Total		200	100.0

Table 2: Descriptive statistics of women responses about knowledge related to osteoporosis

Questions	Ms.	Assessment
Physical activity increases the risk of osteoporosis	1.97	Uncertain
High-impact exercise (weight training) improves bone health	2.32	Uncertain
Most people gain bone mass after 30 years	2.09	Uncertain
Underweight women are more prone to osteoporosis than normal weight women	2.15	Uncertain
The most important time to build bone strength is usually between the ages of 9 and 30	2.32	Uncertain
Bone loss accelerates after menopause	2.32	Uncertain
Too much caffeine and too little calcium increases your risk of osteoporosis	2.56	I Don't Know
There are many ways to prevent osteoporosis	2.61	I Don't Know
Without preventive measures, 20% of women over 50 will sustain a fracture due to osteoporosis in their lifetime	2.43	I Don't Know
There are treatments for osteoporosis after it has developed	2.34	I Don't Know
A long life with low intakes of calcium and vitamin D does not increase the risk	2.14	Uncertain
Smoking does not increase the risk of osteoporosis	2.32	Uncertain
Walking has a significant impact on bone health	2.46	I Don't Know
After menopause, women who do not take estrogen need to 1,500 mg of calcium (eg, 5 cups of milk) per day.	2.17	Uncertain
Osteoporosis affects both men and women	2.66	I Don't Know
Early menopause is not a risk factor for osteoporosis.	2.25	Uncertain
Children between the ages of 9 and 17 get enough calcium through one cup of milk each day to prevent osteoporosis.	1.65	I Know
A family history of osteoporosis isn't a risk factor	2.17	Uncertain
Sardines are rich in calcium and vitamin D19.	2.46	I Don't Know
Low back pain, fractures, height loss, and tooth loss are complications of osteoporosis	2.46	I Don't Know

Cut-off point (>=2.34= I Don't Know/ >=1.67=Uncertain / >=1=I know)

Table 3: Overall assessment for knowledge of Women about Osteoporosis

Questions No. = 20	M. S.	Assessment
Total Score	2.29	Uncertain

Cut-off point (>=2.34 = I Don't Know/ >=1.67=Uncertain / >=1=I know)

Table (3) shows that the overall assessment of women knowledge about osteoporosis is Uncertain.

Table 4: Relationship between Women Knowledge about Osteoporosis and their socio-demographic data

Socio-demographic data	Rating	Chi-square			
		χ^2	*df*	*p-value*	*Sig.*
Age	<= 18	114.089a	115	0.506	NS
	19- 28				
	28- 39				
	39- 49				
	49- 60				
	60+				
Marital status	Married	23.762a	23	0.417	NS
	Divorced				
	Widow				
Residency	Rural	71.784a	20	0.940	NS
	Urban				
Level of education	Do not read and writes	68.784a	46	0.016	**S**
	Able to read and writes				
	Primary school				
	Secondary school				
	Preparatory school				
	Institute\College				
Socio-economic status	Satisfied	49.637a	46	0.330	NS
	Satisfied to some extent				
	Unsatisfied				
Family history	Yes	23.816a	23	0.414	NS
	No				

Table (4) reveals that there is a significant relationship between women knowledge about osteoporosis and level of at (p-value > 0.05), while there is a non- significant relationship between women knowledge with remaining socio-demographic data.

Discussion

Part-I: Discussion of the study sample socio-demographic data (table 1):

The results of the study showed that the majority of the study group at the age that ranged between (19-28) years. This result comes along with the result of a study that done by [17] in their study about knowledge, beliefs, and risk factors for osteoporosis among African women which found that most women at this rang of age.

Regarding to the educational level, the current study indicates that the highest percentage of the study group graduated from the primary stage. These results agree with [18] In their study that made in in Kutch about knowledge on osteoporosis among menopausal women residing at rural areas which stated that "a high percentage of the study sample were with primary education".

Regarding to occupation, the majority of the study groups were housewives. This result comes with study made by [17] that done in Africa about knowledge, beliefs, and risk factors for osteoporosis, which demonstrate that most of women were housewives.

The results of the study showed that the majority of women they have socioeconomic status, the high percentage of both study groups were of moderate socioeconomic status. This finding supports it [19] In their study, (Knowledge about osteoporosis among healthy women attending a tertiary care hospital) in Pakistan the highest percentage of the study group has moderate socio-economic status.

Concerning to residence, the current study shows that the majority of the study group lives in an urban residential area, while the remaining group is from a rural area, this result agrees with [20], In their study that done in Egypt which reported that the majority of the study group lives in an urban residential area, in addition to that the remaining group is from a rural area.

Relative to the marital status, the current study indicates that the highest percentage of women were married, this result supported by) [20] in their study that done in Malaysia which mentioned that a high percentage of the study sample were married.

Regarding to the overall assessment of women knowledge about osteoporosis (table 3) the overall assessment is Uncertain, this study agrees with [19] in their study they mentioned that the overall assessment of women s knowledge is uncertain.

The current study found moderate levels of knowledge among most women; this result agrees with [20] in their study which reported that most women had moderate levels of knowledge about osteoporosis.

Also, this study showed that there is a significant relationship between women knowledge about osteoporosis and their level of education, this result agree with [18] in their study which demonstrate that 'Knowledge had significant association with demographic variables such as educational status and monthly income''.

Conclusions and Recommendations

Conclusions

According to the study findings and discussion, the study-

- Most women were at age (19-26) years.
- The majority of women were from urban residential areas.
- Most of women were housewife.
- The level of education for most women was primary.
- Most women were married.
- The knowledge of women about osteoporosis was moderate.

Recommendations

Based on the study conclusions, the study recommends the following:

- Ministry of Health should employ a mass media to increase women' awareness about osteoporosis and made programs that increase women's knowledge about osteoporosis, such as health education programs through the media.
- Emphasis on collaborative work between the Ministry of Health, the Ministry of Higher Education to include it in their curriculum.

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